

Agilent Ref: 10030712-1  
United States Application Serial No. 10/722,950

### **AMENDMENTS TO THE CLAIMS**

Please amend the claims as shown below. A complete listing of the claims, including their current status, is set forth below. The amendments shown below are supplemental to the amendments made by the Applicants on January 31, 2006.

1. **(Currently Amended)** A method for treating a backing element comprising a gasket, wherein said backing element is adapted to join with a microarray substrate to form an ~~for forming a sealed array assay chamber~~ that is sealed by said gasket ~~when joined to a microarray substrate~~, said method comprising at least one of: (1) depositing a component on said gasket, (2) extracting a component from said gasket, (3) surface modifying said gasket, to treat said backing element gasket.

2.-15. **(Canceled)**

16. **(Previously Presented)** The method of Claim 1, wherein said method comprises surface modifying said gasket.

17. **(Previously Presented)** The method of Claim 16, wherein said surface modification comprises contacting said gasket with a plasma.

18. **(Previously Presented)** The method of Claim 17, wherein said plasma is produced from a gas selected from the group consisting of nitrogen, air, argon, oxygen, nitrous oxide, helium, water vapor, carbon dioxide, methane, and combinations thereof.

19.-26. **(Canceled)**

27. **(Previously Presented)** The method of Claim 1, wherein said treating comprises increasing the hydrophilicity of said gasket.

28. **(Currently amended)** The method of Claim 1, wherein said treating allows said gasket to form a seal when said backing element is joined to said microarray substrate.

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29. **(Previously Presented)** The method of Claim 1, wherein said treating comprises sequentially contacting said gasket with at least two of: plasma, UV with O<sub>2</sub> and a solvent.

30.-52. **(Canceled)**

53. **(Currently Amended)** A method for treating a backing element comprising a gasket, wherein said backing element is adapted to join with a microarray substrate to form an ~~for forming a sealed array assay chamber~~ that is sealed by said gasket when joined to a microarray substrate, said method comprising surface modifying said gasket to treat said backing element gasket.

54. **(Previously Presented)** The method of Claim 53, wherein said surface modification comprises contacting said gasket with a plasma.

55. **(Previously Presented)** The method of Claim 54, wherein said plasma is produced from a gas selected from the group consisting of nitrogen, air, argon, oxygen, nitrous oxide, helium, water vapor, carbon dioxide, methane, and combinations thereof.

56. **(Canceled)**

57. **(Currently Amended)** A method ~~for treating of using~~ a backing element, wherein said backing element is adapted to join with a microarray substrate and comprises ~~comprising a gasket, comprising wherein said method comprises:~~  
surface modifying said gasket to treat said gasket; and  
joining said backing element to a microarray substrate to produce an  
~~producing a sealed array assay chamber comprising~~ that is sealed by said gasket and  
comprises ~~about at least one array of a~~ said microarray substrate assembly.

58. **(Currently Amended)** The method of Claim 57, wherein said surface ~~modification~~ modifying comprises contacting said gasket with a plasma.

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59. (Previously Presented) The method of Claim 58, wherein said plasma is produced from a gas selected from the group consisting of nitrogen, air, argon, oxygen, nitrous oxide, helium, water vapor, carbon dioxide, methane, and combinations thereof.

60. (Currently Amended) The method of Claim 57, wherein said ~~treating~~ surface modifying comprises increasing the hydrophilicity of said gasket.

61. (Currently Amended) The method of Claim 57, wherein said ~~treating~~ surface modifying allows said gasket to form a seal when said backing element is joined to said microarray substrate.

62. (Currently Amended) The method of Claim 57, wherein said ~~treating~~ surface modifying comprises sequentially contacting said gasket with at least two of: plasma, UV with O<sub>2</sub> and a solvent.